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(71) Applicant (for all designated States except US): **BALLARD POWER SYSTEMS AG** [DE/DE]; Neue Strasse 95, 73230 Kirchheim-Nabern (DE).

(71) Applicant (for ZW only): **BALLARD POWER SYSTEMS CORPORATION** [US/US]; 15001 Commerce Drive North, Dearborn, Michigan 48120 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SANG, Jochen**

[DE/DE]; Max-Eyth-Strasse 42, 73230 Kirchheim/Teck (DE). **KNOOP, Andreas** [DE/DE]; Mittlere Beutau 71, 73728 Esslingen (DE).

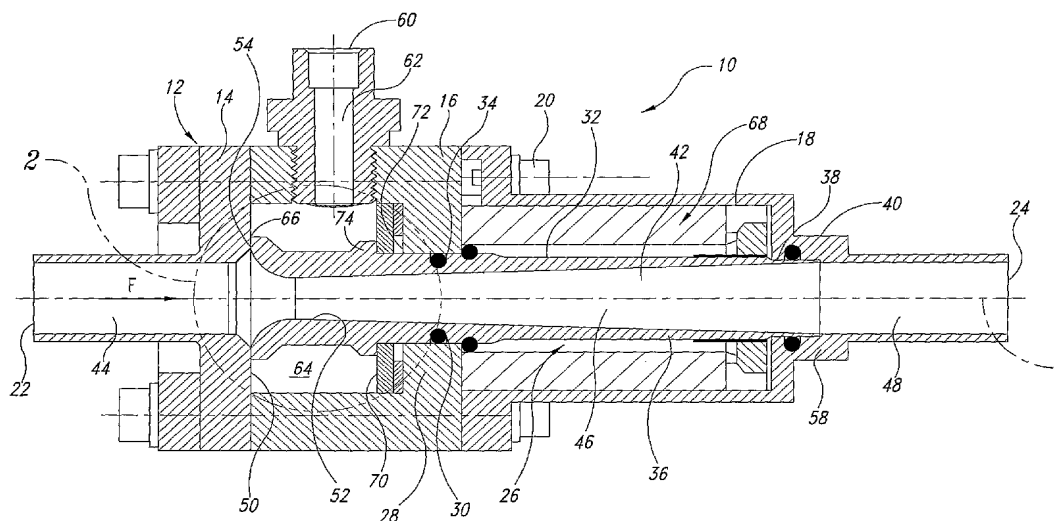
(74) Agents: **HERMANN, S, Karl, R.** et al.; Seed Intellectual Property Law Group PLLC, Suite 6300, 701 Fifth Avenue, Seattle, Washington 98104-7092 (US).

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(54) Title: FUEL CELL SYSTEM WITH VARIABLE COANDA AMPLIFIERS FOR GAS RECIRCULATION AND SYSTEM PRESSURE REGULATION



(57) Abstract: A Coanda flow amplifier comprising a suction intake, an outlet, a fluid channel extending between the suction intake and the outlet, and a drive-flow inlet, which is fluidly connected to the fluid channel via a drive-flow discharge slit, whereby the flow cross section of the drive-flow discharge slit is variably adjustable. In a method to operate the Coanda flow amplifier, the variably adjustable flow cross section of the drive-flow discharge slit is chosen such that a pressure ratio between an output pressure of the drive flow when it leaves the drive-flow discharge slit, and an intake pressure of the drive flow when it enters the drive-flow discharge slit, does not exceed a critical pressure ratio. A fuel cell system comprises at least one fuel cell, a fluid source, a fluid line, and a Coanda flow amplifier arranged in the fluid line, whereby the Coanda flow amplifier is equipped with a drive-flow discharge slit with a variably adjustable flow cross section.

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